

GHERM Monthly Exercise #1

Your Task:

Create a pdf document called “monthly_ex1.pdf” that contains a map of your county and the locations of the medical facilities and local public health department offices. The map should also show the cities and towns as well as major roads. The health department offices should be labeled with their office names.

If needed, follow the detailed guide below to complete the exercise.

Upon completion of the exercise, email the new pdf file to briedd@dhss.mo.gov

Please answer the following questions in the email:

About how long did it take you to complete this exercise?

How would you rate the difficulty of this exercise? (Too Hard, Just Right, Too Easy, etc)

Was the format of the exercise easy to follow?

What could be changed to make the exercises better?

Are there any specific areas that you would like covered in future exercises?

Please complete this exercise by October 15, 2004. If you require more time, or have any questions about this exercise, please contact me at any time.

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Detailed Guide:

Open gherm.mxd in ArcMap.

1. Open ArcMap.
2. Select “Open an existing file” and then browse for maps.
3. In your GHERM folder, locate the file gherm.mxd and open it.

Note: Your data set may be called MERGIS instead of GHERM. If so, open mergis.mxd from your MERGIS folder.

Perform a ‘Save As’ to save your project as ‘monthly_ex1.mxd’. This will insure that your original gherm.mxd file will not be overwritten with your changes.

Note that in the table of contents, the layers are grouped together. To get to an individual layer, click on the + to the left of the group name, and the layers in that group will be listed. To hide the layers again, click on the -.

Locate your county and zoom the map to it.

There are several ways to locate your county. Below are some different options:

- Select the ‘zoom in’ tool and window around your county.

- Select the 'Select Features' tool and click inside your county.
In the table of contents, click the + symbol on the left of "Political Boundary" to see all the layers in that group. Right-click on 'county' and select 'Selection', 'Zoom to selected feature'.
- Under the 'Selection' pull-down menu, go to 'Select by Attributes'. Set the layer to County. Create the expression similar to: "NAME" = 'COLE' but substitute your county for 'COLE'. Click 'Apply'. Close the dialog box. In the table of contents, click the + symbol on the left of "Political Boundary" to see all the layers in that group. Right-click on 'county' and select 'Selection', 'Zoom to selected feature'.

If needed, clear the selected features.

1. Go to 'Selection', 'Clear Selected Features'.

Remove extra layer groups that are not needed.

For this project, we will not be using several groups of layers. Remove the following groups:

Fire/EMS	Communications
Facilities	Hydrology
Fuel and Power Sources	Pollutants
Public Drinking Water	Parks and Public Lands
Nuclear Evacuation	Emergency Response
Census Data	Geology

Note: To remove a group, right-click on the name of the group in the table of contents, and select "remove".

Make your county a different fill color that the surrounding counties (fill color = beige).

1. Select your county by using one of the methods listed above.
2. Expand the Political Boundary group to view the layers in the group.
3. Right-click on the layer "county" and click on "selection" and then "create layer from selected features". This adds a layer to the top of your table of contents that just contains your county boundary.
4. Change the name of the new layer (county selection) to the name of your county (i.e. "Boone"). To change the name slow double-click on the name of the layer in the table of contents and type the new name, or right-click on the name and go to the layer properties. Under the "General" tab change the Layer Name.
5. In the table of contents, click and drag the new layer so that it is under the "Cities and Towns" layer inside the "Political Boundary" group.
6. Change the color of the new layer to "Beige". To change the color, left click on the polygon symbol of the new layer in the Table of Contents. This will take you straight to the color palette. In the color palette, click on the color box for Beige.

Move the "county" layer below your new layer and change the fill color to a light yellow.

You can create a light yellow color by opening the color palette (click on the polygon symbol for “county”) and changing the fill color. Open the pull-down for fill color and select “More Colors”. Change the numbers to R = 255, G = 255, B = 215.

The Cities and Towns are now the same color as your county. Change the fill color of the Cities and Towns so that they will be visible (fill color = mango, outline color = no color).

To do this, go to the layer properties, and change the fill color of Cities and Towns to ‘Mango’ and the outline to ‘No Color.’

Make Local Public Health Agency offices visible.

The layer for Local Public Health Agencies is found under the “DHSS Health Offices and Districts” group. Expand the group to find the layer. Make sure that the group is visible (has the box to the left of the name checked) and that the Local Public Health Agencies layer is visible (checked). If the box is checked, but gray, this means that the layer is on, but the map view is not in the set visible scale range. To change this, right-click on the layer, and go to “Visible Scale Range” and then select “Clear Scale Range.”

If your symbols are still not visible, they could be covered by a polygon layer (such as “Cities and Towns”). Turn off the “Political Boundary” group by unchecking the box in the table of contents. You should be able to see the symbols for Local Public Health Agencies now. The display order needs to be changed in order to be able to view the Political Boundary layers with the Health offices.

Label the Local Public Health Agencies with their names.

Under the Local Public Health Agency layer properties, go to the label tab and select the Label Field “AGENCY”. Click the box for ‘Label all the features the same way.’

Move the “DHSS Health Offices and Districts” group above the “Political Boundary” and “Transportation” groups.

To do this, click and hold the DHSS group and drag it above the Political Boundary and transportation groups. Release the mouse and the groups will change locations. Turn on the Political Boundary group (check the box).

Change the symbology for the Local Public Health Agencies layer to a red star, size 22.

Right-click on the layer, and select Properties. Select the Symbology tab. On the left-hand side under “Show”, click on Features, Single Symbol. Click on the rectangle under “Symbol” to change the type of symbol to display. Find the star in the list of symbols and select it. Change the color to Red and the Size to 22.

Set the weight of the layer to High so that labels will not cover up your symbols.

Under the Local Public Health Agencies layer properties; go to the ‘labels’ tab. Select ‘Label Placement Options’.

Under the ‘Conflict Detection’ tab, change the Feature Weight to ‘High’.

Make all Medical Facilities layers visible.

In the Medical Facilities group, right-click on Rural Clinics and select 'Visible Scale Range' and then 'Clear Visible Scale Range'.

Repeat this process for all the layers in the Medical Facilities that whose checkmark is gray instead of black.

Set the weight of these layers to 'High' to avoid the symbols being covered by any labels.

To do this, do just as you did for the Local Public Health Agencies layers using the labels tab in the layer properties dialog box.

Turn off any additional layers that should not be displayed.

In the Transportation group, uncheck the Airports layer to turn it off.

Adjust any symbols or labels as needed before setting up the map layout.

Create a layout of your map.

Use the icon at the lower left portion of the map screen to change your view to layout.

Use the LetterPortrait.mxt template to add a title, legend, scalebar, northarrow, etc to your map.

Right-click on a white space outside of your map in your layout.

Select Change Layout from the pull-down menu.

Select the General tab, and then click on LetterPortrait.mxt, and then Finish.

Modify the title.

Select the title, move it above the map and change the text.

Modify the legend.

Double-click on the legend to open the properties dialog box.

Under the Items tab, remove all items from the legend listed below Local Public Health Agencies. To do this, scroll down the list under Legend Items, and click on a layer, then click on the arrow pointing to the left. You can select more than one layer at a time by holding down the shift key while making your selection.

Move the Local Public Health Agency layer to the top of the legend by selecting it in the Legend Items list and clicking on the up arrow until it moves to the top.

Divide the legend into 3 columns.

To do this, click on Trauma Centers in the Legend Items list and click the box for Place in new column. Do the same for the layer Ambulatory Surgical Center.

Click Apply to see your changes.

Give the Legend a white background with a black border.

Under the Frame tab, select a 2.0 width border, with a gap of x=5 and y = 5.

Under background, scroll all the way to the bottom of the list and select white. Add a gap of x=5 and y = 5 for the background as well.

Move the legend to the bottom of the map or directly under the title of the map.

Change the size of your map frame so that it does not overlap with your legend.

To do this, click on the map, and click and drag one of the grip points found on the edge of the map frame.

Modify the map description text.

Double-click on the small text that says “<Double-click to enter text>”

Change the text to the following 3 lines:

Line 1: Your Name

Line 2: Today’s Date

Line 3: the name of your project file

Move the text to the bottom right of the map page.

Modify the north arrow and scale bar as desired.

Double-click on each one to find the dialog boxes for changing the properties.

Move them to a desired position on the map.

Make any other changes to the items in the map layout.

Export the map as “monthly_ex1.pdf”.

Under File, select ‘Export Map’. Change the Save as type to PDF.

Make sure the file will save to the proper directory and click Export.

Save your project.

Email the new pdf file to briedd@dhss.mo.gov

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